DOCUMENT RESUME

ED 157 197 95 EA 010 757

AUTHOR Quay, Herbert C.
TITLE School Crime and Conduct Disorder.
INSTITUTION National Council on Crime and Delinquency, Hackensack, N.J. NewGate Resource Center.
SPONS AGENCY Department of Health, Education, and Welfare, Washington, D.C.
PUB DATE Feb 78
NOTE 33p.; Chapter 29 of "Theoretical Perspectives on School Crime, Volume I"; For other papers in this volume, see EA 010 729-768

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS *Behavior Change; *Behavior Theories; *Conduct; *Delinquent Behavior; Disadvantaged Youth; Elementary Secondary Education; *School Environment; *School Vandalism

ABSTRACT

One of 52 theoretical papers on school crime and its relation to poverty, this chapter claims that considering school crime as primarily a manifestation of conduct disorder permits a better understanding of its nature, origin, and treatment. Research into the nature and origin of conduct disorder is discussed. Studies demonstrating successful treatment strategies carried out within the school context are reviewed. (Author/MLF)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED157197

SCHOOL CRIME AND CONDUCT DISORDER

Herbert C. Quay

University of Miami

A paper from
"Theoretical Perspectives on School Crime"

Submitted to
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
February 1978

Submitted by
NATIONAL COUNCIL ON CRIME AND DELINQUENCY
Hackensack, N.J.

EA 010 757

ABSTRACT

Most school crime is viewed as probably emanating from the empirically derived dimension of deviant behavior which has been labeled Conduct Disorder. Research into the nature and origin of Conduct Disorder is discussed. Studies demonstrating successful treatment strategies carried out within the school context are reviewed.

Introduction

While the focus of this volume is on crime occurring within the context of the school, it would be a serious error to consider this form of behavioral deviance as somehow independent of other forms of disturbed and disturbing behavior in children and adolescents. As we shall attempt to demonstrate, the almost limitless number of behavioral acts that are generally considered legally or socially deviant can be looked upon as members of a very limited number of classes or subgroups of behaviors. To seek the causes or cures of school crime either under the impression that crimes occurring in the school context represent isolated and discrete forms of deviant behavior or with the notion that those who are involved in school crimes are all members of a behaviorally homogeneous subgroup will be a fruitless undertaking. Problems of cause, prevention, and remediation of school crime will be soluble only if they are cast in a broader framework which relates school crime to the major subcategories of behavioral deviance.

The Basic Constellations of Deviant Behavior

Since the pioneering efforts of Hewitt and Jenkins (1946), there have been a host of studies which have

demonstrated that the myriad of specific forms of problem behavior which children and adolescents may exhibit can be incorporated within one of four basic constellations. Most recent studies, utilizing modern multivariate statistical techniques for the analysis of the data, have followed Peterson's (1961) model study of the dimensions of behavior problems in normal elementary school age children. These studies have dealt with normal junior high school and high school age youth (Quay & Quay, 1965; Peterson, Quay, & Tiffany, 1961), children in special classes for the emotionally disturbed (Quay, Morse, & Cutler, 1966), juvenile delinquents, ages 12 to 17, (Peterson, Quay, & Tiffany, 1961; Quay, 1964; Quay, 1966), and children being seen in child guidance clinics (Patterson, 1964; Miller, 1967).

The findings from the majority of these studies have been remarkably consistent in demonstrating that the observed relationships between most behavior problems can be reduced to four major clusters of interrelated characteristics. While these clusters have been given different labels at different times, they are perhaps most frequently referred to as Conduct Disorder, Personality Disorder, Inadequacy-Immaturity, and Socialized Delinquency.

Conduct Disorder, sometimes referred to as unsocialized-aggressive or unsocialized-psychopathic disorder, consists of behaviors which are clearly at variance with societal expectations in almost all situations and are clearly aversive to both adults and other children. Characteristics consistently associated with Conduct Disorder are disobedience, disruptiveness, fighting, destructiveness, irresponsibility, impertinence, jealousy, profanity, attention-seeking, boisterousness, assaultiveness, defiance of authority, inadequacy, guilt feelings, irritability, quarrelsomeness, dislike of school, destructiveness of property, and negativism. A child or adolescent consistently manifesting these characteristics is almost certain to come to the adverse attention of social institutions designed to control and shape behavior: the home, the school, and the juvenile justice system.

The second major pattern of deviant behavior is that labeled Personality Disorder; sometimes referred to as anxious-withdrawn or neurotic disorder. Most of the characteristics of this pattern stand in considerable contrast to Conduct Disorder. There are strong elements of subjective distress, but the behavior generally has much less negative impact on the child's environment.

Typical characteristics of Personality Disorder are social withdrawal, shyness, anxiety, crying, hypersensitivity, chronic sadness, seclusiveness, worrying, timidity, lack of self-confidence, and inability to have fun. Clearly, these behaviors represent more of a retreat from the social environment than an aggressive and hostile response to it. At the same time, the presence of children manifesting these characteristics in the courts and correctional institutions is testimony to the fact that, especially when coupled with impulsiveness stemming from high anxiety, this pattern may be associated with legally delinquent activities.

The third dimension of deviance has been referred to as the Inadequacy-Immaturity syndrome. Typical characteristics are preoccupation, short attention span, clumsiness, passivity, daydreaming, sluggishness, drowsiness, excessive giggling, masturbation, and being easily flustered and confused. It is of interest to note that many of these characteristics seem to be present in almost all children at some stage in their development. However, when these behaviors appear in quantity in elementary school age or older children, they constitute problems, especially for the parent and classroom teacher. When involved in frankly delinquent behavior, children manifesting these characteristics are more often followers

than either leaders or "lone wolf" delinquents.

The fourth pattern represents behavior which is neither generally a source of personal distress nor clearly maladaptive considering the social conditions under which it seems to arise. Neither does it involve alienation from the peer group. Instead, it encompasses behavioral traits that seem quite rationally acquired in response to environmental circumstances. This pattern has usually been labeled Socialized, or Subcultural, Delinquency and children manifesting these characteristics are most often found living in urban deteriorated areas. Typical characteristics are gang activities, cooperative stealing, habitual truancy, being accepted by and identified with a delinquent subgroup, and participation in the "street culture." Adolescents manifesting these characteristics cannot, under the circumstances, be looked upon as psychologically disordered. Rather, they have adopted patterns of behavior which have been reinforced by their peers and by the delinquent or criminal subculture which provides their socialization experiences.

As we noted, these subgroups have appeared in all the populations sampled by the research mentioned above, suggesting that their presence is ubiquitous. It is clear that all the social institutions in our society

charged with some responsibility for socialization or resocialization of the young are dealing with the same basic subsets of problem behaviors.

While these four basic subgroups have been described by multivariate statistical techniques, it has remained for more experimental research to explicate further the characteristics of the subgroups in terms of additional psychological and educational variables relevant to both causes and cures.

Conduct Disorder

This subgroup, because of the pervasive and serious problems to society which its members present, has been the subject of more research than has any other subgroup. Since it is likely that much school crime, particularly assault and property destruction, is attributable to members of this subgroup, we will deal with studies of individuals with Conduct Disorders in some detail, looking first at studies which have provided more information about the characteristics of the pattern itself.

Correlates of Conduct Disorder in Institution and Classroom

Among samples of children who were legally delinquent, the presence of the Conduct Disorder pattern has been related to recidivism (Quay, Peterson, & Consalvi, 1960;

Mack, 1969), to incarceration for a crime against the person, to problem behavior while institutionalized (including assaults on staff and other residents), to longer institutionalization (Quay et al., 1960; Quay & Levinson, 1967), to failure to respond to a counseling-oriented institutional program (Quay & Levinson, 1967), and to probation failure (Devies, 1975).

Within the public school context, the pattern has been related to hyperactivity (Victor, Halverson, Inoff, & Buczkowski, 1973) and to frequency counts of specific deviant behavior (e.g., out of seat, physical contact with others, noise, vocalizations) in the classroom (Werry & Quay, 1969).

With regard to academic skills, Glavin and DeGirolamo (1970) found conduct disorder children more likely to make errors in spelling due to refusal either to write the word or to complete it once they had started writing it.

These studies provide additional information about the behavioral characteristics of the Conduct Disorder pattern and, at the same time, provide a measure of validation for the original formulation of the nature of this subgroup.

Cognitive and Perceptual Functioning

While this group differs little, if any, in measured intelligence from the other deviant subgroups (Quay et al., 1960; Quay & Levinson, 1967; Prentice & Jurkovic, 1976), several studies have demonstrated interesting and potentially useful findings with respect to perceptual and cognitive functioning within the Conduct Disorder group.

A number of these studies have been stimulated by the theoretical speculation that extreme Conduct Disordered individuals are driven by an inordinate need for stimulation (Quay, 1965, 1977) and thus will be intolerant of boredom and routine and will behave in ways designed to increase their level of arousal.

Orris (1969) was the first to test this hypothesis. He demonstrated that Conduct Disordered delinquents performed more poorly on a task requiring sustained attention then either his Personality Disorder or Socialized Delinquent subjects. In some cases, his Conduct Disordered subjects, rather than attending to the task, got up, walked around the room, and sang to themselves.

Skrzypek (1969), in a complex experimental study, tested the hypothesis that institutionalized delinquents

of the Conduct Disorder subgroup would prefer novel and complex stimuli to conventional and simple ones. In demonstrating this, he also found that even a brief period of isolation from sensory inputs increased both novelty and complexity preference in this subgroup.

Working with much younger children in a residential setting for the emotionally disturbed, Whitehill, DeMyer-Gapin, and Scott (1976) and DeMyer-Gapin and Scott (1977) experimentally demonstrated heightened stimulation seeking among subjects in their Conduct Disorder groups.

In a sample of institutionalized young adult offenders, Wheeler (1974) found that his Conduct Disorder group performed better on tasks requiring cognitive restructuring than on problems necessitating only automatic mental responses. However, Prentice and Jurkovic (1976) found, in an adolescent delinquent group, that Conduct Disorder subjects were more concrete in their thinking. They also found this group to be lower in moral maturity and to use more immature modes of moral reasoning.

Taken together, all these studies suggest that the Conduct Disordered individual is one who seeks novelty,

excitement, and a level of sensory input above that required by other individuals.

Responsiveness to Social Cues and Rewards

The behavior of most children and adolescents in our society is usually under the control of cues and rewards of a social nature (e.g., facial expressions, gestures, and words) delivered by people in the environment. The extent to which an individual is not under the control of social reinforcers will make it difficult for him to fit into most settings.

There has been a considerable amount of research which has attempted to investigate the extent to which Conduct Disordered children and adolescents are susceptible to social reinforcers. Most of these studies have involved a methodology such that verbal approval has been used in order to attempt to increase the performance of subjects on some experimental task.

In an early study of elementary school age children who manifested the Conduct Disorder pattern, Levin and Simmons (1962) found that verbal rewards actually decreased performance, rather than increasing it, in their subjects. While the literature on the responsiveness of adults with severe Conduct Disorders to social reinforce-

ment has been equivocal (see Johns & Quay, 1962; Bryan & Kapche, 1967; Bernard & Eisenman, 1967), a recent study by Steward (1972) has suggested that the performance decrement under social rewards found by Levin and Simmons extends to a group of institutionalized adolescent delinquents. In essence, Steward found that members of both the Personality Disorder and Socialized Delinquency subgroups did respond to verbal rewards, while those in the Conduct Disorder subgroup showed a decrement in their performance when reinforced by comments from the experimenter.

Clearly, if the Conduct Disordered child or adolescent is to be brought into the social mainstream, he must become responsive to the social reinforcers which control our behavior in the home, school, and larger community.

Physiological Factors

The hypothesis that there might be a physiological component involved in those manifesting serious Conduct Disorder has also generated some research. Borkovec (1970) contrasted Conduct Disordered, Personality Disordered, and Socialized delinquents on a measure of autonomic nervous system reactivity and found some evidence for underreaction in the Conduct Disorder group. This finding is in accord with expectations based on the stimulation-seeking hypothesis discussed above, as chronic

underreaction could lead to a less than optimal state of arousal, which in turn could be subjectively experienced as unpleasant, thus motivating stimulation-seeking behavior.

Along completely different lines, Webb and Oski (1974) contrasted iron-deficient-anemic Black junior high school males with their hematologically normal peers and found that the anemic group manifested more Conduct Disorder characteristics as rated by their classroom teachers. They suggested that the iron deficiency might involve heightened activation manifesting itself in restless, irritable, and disruptive behavior.

The Antecedents of Conduct Disorder

While there has been an immense amount of inquiry, much of it unproductive, into the causes of abnormal behavior in children with regard to the effect of experiences within the family, the amount of research directed toward the possibility of differential antecedents for the four major patterns has been much more limited. There are, however, studies which permit the inference that, by and large, the Conduct Disordered child suffers from a lack of adequate parenting and adequate socializing experiences.

In their early research, Hewitt and Jenkins (1946) suggested that the Conduct Disordered child came from a family situation marked by active rejection of the child by the parents. In terms of how those with Conduct Disorders retrospectively view their parents as having been during their childhood, Hezel (1968) reported that his subjects felt hostility, rejection, and hostile detachment. Megargee and Golden (1973) noted that their sample expressed hostility toward their earlier treatment at the hands of both parents. Observing Conduct Disordered adolescents and their parents in actual social interaction, Hetherington, Stouwie, and Ridberg (1971) found minimal participation of these adolescents in family interaction and decision making. Recently, Murrell (1974) found that such children were more likely to be middle or last-born children in somewhat larger than usual families.

Taken together, these studies suggest that at least the severely Conduct Disordered child is reared in a situation unlikely to produce strong affectional bonds with parents (and thus with other adults) and unlikely to provide experiences necessary to the development of internal controls and responsiveness to the usual social means of control.

However, before we uncritically indict ostensibly

rejecting parents, we must consider the role that the Conduct Disordered child may have played in the family. We have suggested in detail elsewhere (Quay, 1977) that an overactive, stimulation-seeking child may precipitate parental rejection, which in turn may lead to a paucity of effective socializing experiences for precisely the child who needs such experiences the most.

Treatment of Conduct Disorder

While a host of measures have been suggested to reduce school crime, which seem to involve almost everything but attempting to resocialize the perpetrators of these crimes (see Greenberg, 1974), it seems almost certain that little progress can occur until the schools and the community adopt demonstrably effective procedures for dealing with children and adolescents with Conduct Disorder. Fortunately, over the last 15 years, there has accumulated an impressive body of knowledge indicating that the systematic use of behavior modification techniques can dramatically reduce deviant behavior while, at the same time, increasing the acquisition of prosocial behavior and academic skills. These techniques, to be illustrated in greater detail in the discussion of specific programs below, principally involve the precise assessment of the behavior to be changed, the structuring of the classroom or

other setting to minimize deviance, and the contingent use of rewards by teachers, parents, and others. The method also allows precise measurements of its effects on a continuous basis so that programs which are obviously not working can be modified until they show positive effects.

This line of research began by focusing on a single deviant child in the classroom (Zimmerman & Zimmerman, 1962; Patterson, Jones, Whittier, & Wright, 1965), was extended to small groups of deviant children (Quay, Sprague, Werry, & McQueen, 1967; O'Leary, Becker, Evans, & Saudargas, 1969), and then was used with entire classrooms of deviant children (Quay, Werry, McQueen, & Sprague, 1966; Hewett, Taylor, & Artuso, 1969).

This body of research has also indicated that success can be obtained with a variety of models of service delivery. Positive results have been reported for all-day special programs (Hewett et al., 1969; O'Leary & Becker, 1967; Heaton, Safer, Allen, Spinnato, & Prumo, 1976) for resource rooms where children spent only a portion of the school day (Glavin, Quay, Annesley, & Werry, 1971; Quay, Glavin, Annesley, & Werry, 1972), for the use of the mechanism of school-clinic cooperation to provide

consultation to regular classroom teachers (Kent & O'Leary, 1976), and for programs providing direct service to pupils by outside agencies (Stuart, Tripodi, Jayaratne, & Camburn, 1976). These studies, and the many others which could have been cited here, provide information about specific techniques which can be used to implement the basic principles of behavior modification -- principles already thoroughly researched in laboratory settings.

While much of the research today has been focused on elementary school age children, several recent studies with children up to age 16 are of particular interest to the student of school crime, since it is the Conduct Disordered older child and adolescent who can present the most serious problem.

Heaton et al. (1976) developed a motivational environment for behaviorally deviant junior high school students. Their subjects had all had multiple suspensions from school and records of prolonged misconduct. They grouped these students into a single class and provided a special morning and afternoon program. The morning program involved traditional academic work, but with points given to the pupils for starting, maintaining, and completing assigned work as well as for appropriate

social behaviors. Points were also paired with social reinforcers such as smiles, gestures of approval, and verbal praise from teachers. Students chose what they wished to do in the afternoon, depending upon their morning performance; games, activities, soft drinks, candy, and, at times, movie tickets and bowling passes could be purchased by the points earned during the morning academic sessions. Earning 30 of a possible 32 points could also purchase early dismissal.

These investigators also sought to involve the parents in their children and were able to do so in three-fifths of the cases. Parents were encouraged to establish home-based reinforcers such as late privileges, TV privileges, and allowances which were contingent on progress in the school program.

When compared to an untreated control group, only 1 out of 14 of the experimental children left school as opposed to 10 out of 32 controls. In addition, the experimental children showed better attendance, fewer disciplinary problems, and some significant gains in academic achievement.

This program served successfully what was obviously a group of rather severely Conduct Disordered junior high school students. The procedures were essentially those

which had been developed in earlier work with younger children and which the researchers successfully generalized to this older and behaviorally more difficult group.

Stuart et al. (1976) took a somewhat different approach, although still operating within a behavior modification framework. Their strategy, based upon what they call "the operant interpersonal" approach, was aimed at helping develop negotiation skills for successful social interchanges among adolescents, their parents, and their teachers. In this project, a therapist served as a mediator in creating an environment in which each person was to be free to express his or her desires. The therapist also offered rationales for the changing behaviors on the part of all parties so that each participant could make concessions without losing face. The therapist also provided a structure for carrying these negotiated changes into the natural environment of community living.

To implement their procedures, the investigators established a family and school consultation project which received referrals from principals and counselors. In the main, their clients were males, age 13 to 16, from lower socioeconomic status, one-parent homes.

The school procedures involved assessment of client progress and needs and the reorganization of reinforcers such as privileges and grades to become contingent on the client's own improvement rather than on class standing. For each boy, a formalized program was developed along the lines of a behavioral contract which was agreed to by all parties.

Families were aided in developing contracts which promoted the performance of targeted specific school and home behaviors, pinpointed the responsibilities of the family in keeping appointments and fulfilling contracts to the children, and set forth the responsibilities of the therapist in facilitating communication and cooperation between teachers and parents. Each therapist devoted a total of about 20 hours to the treatment of each case, over half of which was spent in person-to-person contact with families, with most of the remainder involving person-to-person contact with teachers.

Results for the experimental group when compared to a control group indicated that the clients had improved behavior ratings as reported by those who had referred the children, improved ratings of behavior on the part of participating teachers, and improved parent-child interaction as reported by the parents. School grades also

improved, but not to a statistically significant degree.

The Utilization of Less Restrictive Alternatives

The current philosophy with regard to the education of all children who are handicapped in terms of school performance is to provide an appropriate program in the least restrictive setting which permits the maximum participation in the regular school program. Recent studies have indicated that modification of both problem behavior and academic achievement can be obtained without the necessity of labeling a child as emotionally disturbed and without participation in all-day self-contained class programs.

The writer and his colleagues (Quay et al., 1972) utilized the resource room concept to deal with the problems presented by Conduct Disordered elementary school children in the inner city. Children referred by their teachers attended the experimental resource room for one or two periods a day and received instruction in arithmetic, reading, or both. The classroom was structured in such a way as to give pupils individual work areas and to minimize distractibility and interference with one another. A system was utilized which provided token reinforcers which could later be traded for food, toys, games, or

free-time activities. At the end of the 16-week period during which the experimental program was run, results indicated significant improvement in social behavior and significantly improved achievement in both reading and arithmetic. In fact, the children in the experimental program gained almost one full year in reading and slightly over one full year in arithmetic, as compared to gains about one-half this size for an untreated control group.

It is obvious that the resource room enjoys a considerable cost saving over all-day programs. While there were three resource rooms in operation, the authors estimated that it would have required a minimum of seven or eight self-contained classes to serve the 69 children who participated in the project. A further advantage of the resource room was that costly (in terms of both time and money) psychological and psychiatric examinations were not necessary as a prerequisite to the participation of the children in the resource room program. Attendance in the resource room also was not considered to be as stigmatizing as attendance in an all-day program for "emotionally disturbed" children would have been.

The results of these studies, and many others that

could just as well have been cited, clearly indicate that the Conduct Disordered child and adolescent can become a functioning and productive member of family, school, and community. All these efforts have in common the restructuring of the social environment, rather than the restructuring of some vague internal process inside the deviant child's head. Thus, the results suggest that prevention can probably be achieved by an early restructuring of the home and school so that they no longer facilitate the development of deviance in the first place.

It is also apparent that while parental cooperation is helpful, the school itself can do a great deal for the Conduct Disordered child on its own, even with programs not requiring removal of the child from the educational mainstream.

Outcomes

Most research following up deviant populations has not utilized the fourfold classification discussed in this paper. However, by inference, it would appear that those groups characterized by Conduct Disorder symptoms have generally been found to have persisting problems.

In what is now regarded as a classic follow-up study Robins (Robins, 1966; see also Robins, 1972) found that

antisocial children, or adults, had more psychiatric hospitalization and more difficulties with the law, with their jobs, with their families, and with social relationships in general than did either neurotic or control children.

Two more recent studies, with follow-ups of much shorter duration, have also suggested that Conduct Disorder persists over time. Victor and Halverson (1976) have provided a two-year follow-up of a sample of ostensibly normal public school children in terms of rated problem behavior. Correlations between teachers' ratings taken two years apart for the Conduct Disorder cluster were .57 for boys and .74 for girls. A smaller group of extreme cases of teacher-judged Conduct Disorder also showed persistence over a one-year span.

Gersten, Langner, Eisenberg, Simcha-Fagan, and McCarthy (1976) studied children in a sample of 732 families over a five-year period. These investigators studied a number of dimensions of deviance, including conflict with parents and delinquency. On the latter two dimensions, there was an increase in the amount of the deviant behavior over time. The authors concluded, "In general, then, the aggressive or Conduct Disorder types of behavioral disturbance continue over time at same

or increased levels of expression" (p. 124). A breakdown of the data by age of the child when first examined was also revealing. The authors stated, "Thus, antisocial behavior appears to become an established pattern of behavior only at or after 10 years of age and its power for predicting adult antisocial behavior should be maximal when assessed in middle adolescence" (p. 124). The results of this study would suggest that if Conduct Disorder behavior is firmly established at age 10 or later, the most likely course would be the continued persistence of such behavior, with all the untoward consequences attendant thereupon.

It is clear that the results of these follow-up studies indicate that Conduct Disorder is not a self-limiting phenomenon. Thus, it becomes important to intervene successfully at least by the beginning of adolescence to avoid the social consequences of delinquency, later adult criminality, and other manifestations of social dysfunction.

Conclusion

Considering school crime as primarily a manifestation of Conduct Disorder permits a better understanding of its nature, orgin, and treatment. Successful treatment

within the context of the school itself is clearly possible when the principles of behavior modification are put to use. A failure to treat the problem will clearly have continued untoward consequences for the children involved and for society as a whole.

References

Bernard, J. L., & Eisenman, R. Verbal conditioning in sociopaths with social and monetary reinforcement. Journal of Personality and Social Psychology, 1967, 6, 203-206.

Borkovec, T. D. Autonomic reactivity to sensory stimulation in psychopathic, neurotic and normal delinquents. Journal of Consulting and Clinical Psychology, 1970, 35, 217-222.

Bryan, J. H., & Kapche, R. Psychopathy and verbal conditioning. Journal of Abnormal Psychology, 1967, 72, 71-73.

DeMyer-Gapin, S., & Scott, T. J. Effects of stimulus novelty on stimulation seeking in antisocial and neurotic children. Journal of Abnormal Psychology, 1977, 86, 96-98.

Devies, R. K. The use of the differential behavioral classification system of the juvenile offender to distinguish probation successes from probation failures. Unpublished doctoral dissertation, Kent State University, 1975.

Gersten, J. C., Langner, T. S., Eisenberg, J. G., Simcha-Fagan, O., & McCarthy, E. D. Stability in change in types of behavioral disturbance of children and adolescents. Journal of Abnormal Child Psychology, 1976, 4, 111-127.

Glavin, J. P., & DeGirolamo, G. Spelling errors of withdrawn and conduct problem children. The Journal of Special Education, 1970, 4, 119-204.

Glavin, J. P., Quay, H. C., Annesley, F. R., & Werry, J. S. An experimental resource room for behavior problem children. Exceptional Children, 1971, 38, 131-137.

Greenberg, B. School vandalism: Its effects and paradoxical solutions. Crime Prevention Review, January 1974, pp. 11-18.

Heaton, R. C., Safer, D. J., Allen, R. P., Spinnato, N. C., & Prumo, F. A motivational environment for

behaviorally deviant junior high school students. Journal of Abnormal Child Psychology, 1976, 4, 263-275.

Hetherington, E. M., Stouwie, R. J., & Ridberg, E. H. Patterns of family interaction and child-rearing attitudes related to three dimensions of juvenile delinquency. Journal of Abnormal Psychology, 1971, 78, 160-176.

Hewett, F. M., Taylor, F. D., & Artuso, A. A. The Santa Monica project: Evaluation of an engineered classroom design with emotionally disturbed children. Exceptional Children, 1969, 35, 523-529.

Hewitt, L. E., & Jenkins, R. L. Fundamental patterns of maladjustment: The dynamics of their origins. Springfield, Ill.: State of Illinois, 1946.

Hezel, J. D. Some personality correlates of dimensions of delinquency. Unpublished doctoral dissertation, St. Louis University, 1968.

Johns, J. H., & Quay, H. C. The effect of social reward on verbal conditioning in psychopathic and neurotic military offenders. Journal of Consulting Psychology, 1962, 26, 217-220.

Kent, R. N., & O'Leary, K. D. A controlled evaluation of behavior modification with conduct problem children. Journal of Consulting and Clinical Psychology, 1976, 44, 586-596.

Levin, G. R., & Simmons, J. J. Response to praise by emotionally disturbed boys. Psychological Reports, 1962, 11, 10.

Mack, J. L. Behavior ratings on recidivist and non-recidivist delinquent males. Psychological Reports, 1969, 25, 260.

Megargee, E. I., & Golden, R. E. Parental attitudes of psychopathic and subcultural delinquents. Criminology, February 1973, pp. 427-439.

Miller, L. C. Dimensions of psychopathology in middle childhood. Psychological Reports, 1967, 21, 897-903.

Murrell, S.A. Relationships of ordinal position and family size to psychosocial measures of delinquents. Journal of Abnormal Child Psychology, 1974, 2, 39-46.

O'Leary, K.D., & Becker, W.C. Behavior modification of an adjustment class: A token reinforcement program. Exceptional Children, 1967, 33,637-642.

O'Leary, K.D., Becker, W.C., Evans, M.B., & Saudargas, R.A. A token reinforcement program in a public school: A replication and systematic analysis. Journal of Applied Behavior Analysis, 1969, 2, 3-13.

Orris, J.B. Visual monitoring performance in three subgroups of male delinquents. Journal of Abnormal Psychology, 1969, 74, 227-229.

Patterson, G.R. An empirical approach to the classification of disturbed children. Journal of Clinical Psychology, 1964, 20, 326-337.

Patterson, G.R., Jones, R., Whittier, J., & Wright, M. A behavior modification technique for the hyperactive child. Behavior Research and Therapy, 1965, 2, 217-226.

Peterson, D.R. Behavior problems of middle childhood. Journal of Consulting Psychology, 1961, 25, 205-209.

Peterson, D.R., Quay, H.C., & Tiffany, T.L. Personality factors related to juvenile delinquency. Child Development, 1961, 32, 355-372.

Prentice, N.M., & Jurkovic, G.J. The relationship of moral and cognitive development to dimensions of juvenile delinquency. Paper presented at the meeting of the Western Psychological Association, Los Angeles, April 1976.

Quay, H.C. Personality dimensions in delinquent males as inferred from the factor analysis of behavior ratings. Journal of Research in Crime and Delinquency, 1964, 1, 33-37.

Quay, H.C. Psychopathic personality as pathological stimulation-seeking. American Journal of Psychiatry, 1965, 122, 180-183.

Quay, H.C. Personality patterns in preadolescent delinquent boys. Educational and Psychological Measurement, 1966, 16, 99-110.

Quay, H. C. Psychopathic behavior: Reflections on its nature, origins and treatment. In F. Weizmann & I. Uzgiris (Eds.), The structuring of experience. New York: Plenum, 1977.

Quay, H. C., Glavin, J. P., Annesley, F. R., & Werry, J. S. The modification of problem behavior and academic achievement in a resource room. Journal of School Psychology, 1972, 10, 187-198.

Quay, H. C., & Levinson, R. B. The prediction of the institutional adjustment of four subgroups of delinquent boys. Unpublished manuscript, 1967.

Quay, H. C., Morse, W. C., & Cytler, R. L. Personality patterns of pupils in special classes for the emotionally disturbed. Exceptional Children, 1966, 32, 297-301.

Quay, H. C., Peterson, D. R., & Consalvi, C. The interpretation of three personality factors in juvenile delinquency. Journal of Consulting Psychology, 1960, 24, 555.

Quay, H. C., & Quay, L. C. Behavior problems in early adolescence. Child Development, 1965, 36, 215-220.

Quay, H. C., Sprague, R. L., Werry, J. S., & McQueen, M. M. Conditioning visual orientation of conduct problem children in the classroom. Journal of Experimental Child Psychology, 1967, 5, 512-517.

Quay, H. C., Werry, J. S. McQueen, M., & Sprague, R. L. Remediation of the conduct problem child in a special class setting. Exceptional Children, 1966, 32, 509-515.

Robins, L. N. Deviant children grown up. Baltimore: The Williams and Wilkens Company, 1966.

Robins, L. N. Follow-up studies of behavior disorders in children. In H.C. Quay & J. S. Werry, Psychopathological disorders of childhood. New York: Wiley, 1972.

Skrzypek, G. J. Effect of perceptual isolation and arousal on anxiety, complexity preference and novelty preference in psychopathic and neurotic delinquents. Journal of Abnormal Psychology, 1969, 74, 321-329.

Stewart, D. J. Effects of social reinforcement on dependency and aggressive responses of psychopathic, neurotic and subcultural delinquents. Journal of Abnormal Psychology, 1972, 79, 76-83.

Stuart, R. V., Tripodi, T., Jayaratne, S., & Camburn, D. An experiment in social engineering in serving the families of predelinquents. Journal of Abnormal Child Psychology, 1976, 4, 243-261.

Victor, J. B., & Halverson, C. F. Behavior problems in elementary school children: A follow-up study. Journal of Abnormal Child Psychology, 1976, 4, 17-29.

Victor, J. B., Halverson, C. F., Jr., Inoff, G., & Buczkowski, H. J. Objective behavior measures of first- and second-grade boys' free play and teacher's ratings on a behavior problem checklist. Psychology in the Schools, 1973, 10, 439-443.

Webb, T. E., & Oski, F. A. Behavioral status of young adolescents with iron deficiency anemia. Journal of Special Education, 1974, 8, 153-156.

Werry, J. S., & Quay, H. C. Observing the classroom behavior of elementary school children. Exceptional Children, 1969, 35, 461-470.

Wheeler, C. A. The relationship between psychopathy and the weak automatization cognitive style. FCI Research Reports, 1974, 6, No. 2.

Whitehill, M., DeMyer-Gapin, S., & Scott, T. J. Stimulation-seeking in antisocial preadolescent children. Journal of Abnormal Psychology, 1976, 85, 101-104.

Zimmerman, E. H., & Zimmerman, J. The alteration of behavior in a special classroom situation. Journal of the Experimental Analysis of Behavior, 1962, 5, 59-60.